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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,577	10/30/2003	Hiroyuki Nagano	4635-004	7209
22429	7590	06/11/2007		
LOWE HAUPTMAN BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 ALEXANDRIA, VA 22314			EXAMINER SHAH, MILAP	
			ART UNIT 3714	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/696,577	<b>Applicant(s)</b> NAGANO, HIROYUKI	
	<b>Examiner</b> Milap Shah	<b>Art Unit</b> 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-11,13-17 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-11,13-17 and 19-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 17, 2007 has been entered.

The Examiner acknowledges that claims 1, 5, 6, 11, 13, 14, 17, & 19 were amended, claims 3, 12, & 18 were canceled, and claims 21-23 were added. Therefore, claims 1, 2, 4-11, 13-17, & 19-23 are currently pending.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. New claims 21-23 recite that either the sound transmitting passages or the sidewalls of the sound transmitting passages are parallel throughout their entireties. Such a limitation does not appear to be described in the original specification. This is a new matter rejection. Appropriate clarification or correction is required to meet the written description requirement.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rasmussen et al. (U.S. Patent Application Publication No. 2004/0053699), filed on September 12, 2002 in view of Koizumi (U.S. Patent No. 5,452,025), issued on September 19, 1995.

**Claims 1, 4-11, 13-17, 19, & 20:** Rasmussen et al. disclose the invention substantially as claimed including a gaming machine comprising a cabinet in which various components are housed, including a display device (figure 4[display 60]) for showing images, sound generating devices (speakers are inherently enclosed in the cabinet per disclosure of the speaker bar 40 of figure 4) integrated within the cabinet for generating sound according to the game, and sound transmitting holes (figure 4[speaker bar 40]) positioned such that sound coming from the sound generating devices exits the sound transmitting holes (figure 4[speaker bar 40]). Rasmussen et al. also disclose a door that defines a front face of the cabinet, which is openable to allow access to the interior of the cabinet (figure 4 shows the gaming machine with the door and figure 5 shows the gaming machine without the door, see also description of figures 4 & 5). The door includes openings for the display device and sound transmitting holes (sound bar 40).

Rasmussen et al. specifically lack disclosing:

(a) the speaker or sound transmitting holes are specifically positioned coelevational with the opening for the display device (figure 11 shows the opening) and that sound transmitting passages extend from the sound generating devices to the sound transmitting holes; and

(b) the specific formation or shape of the sound transmitting passage having side walls in a trapezoidal shape, thereby creating the various differences in cross sections as the passage extends forwardly from the rear of the cabinet to the front of the cabinet where the sound transmitting holes are located. Since the combination lacks trapezoidal side walls for the sound transmitting passage, it also lacks, as a result, a sound transmitting passage having (b1) a substantially constant width and a height that increases as each of the sound transmitting passages extends towards the respective sound transmitting hole, (b2) the length or height of rectangular cross sections of the passage increase as each sound transmitting passage extends towards the respective sound transmitting hole, and (b3) each of trapezoidal walls has a shorter and longer base, wherein the longer base is disposed forward of and parallel with the shorter base (each of (b1)-(b3) are considered inherent characteristics when having trapezoidal sidewalls).

However, Koizumi discloses a similar display device setup that is capable of being implemented in the cabinet of Rasmussen et al. Koizumi's display device setup includes sound generating devices (figure 1[speaker 3]) being disposed to the rear of the display device setup such that fixed sound transmitting passages extend forwardly from each respective sound generating device to the respective sound transmitting holes on the front of the display set up (see abstract & figures 1, 2, & 5). One of ordinary skill in the art would be

motivated to modify the gaming machine and cabinet of Rasmussen et al. to propagate the sounds according to the game in such an area that the player could easily hear the sounds of the game. It is well known that casinos are essentially giant noise filled rooms, thus, one would be motivated to provide directed sound via a suitable waveguide, such that, excessive volumes from the gaming machine would not be necessary. Therefore, it would have been obvious to one of ordinary skill in the art to modify Rasmussen et al. with speakers mounted coelevational (i.e. in the same horizontal plane) with sound transmitting passages as taught by Koizumi in at least figure 5 in order to properly propagate sounds according to the game to a player without utilizing excessive volume in already noise filled casinos.

Thus, the combination of Rasmussen et al. & Koizumi discloses the invention substantially as claimed except for the remaining issue of the shape of said transmitting passages, however, regardless of these deficiencies (i.e. as stated above in part (b)), at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the side walls of Koizumi from a rectangular or square shape to one of a trapezoidal shape, since a review of Applicant's specification has not disclosed that the having the specific trapezoidal side wall shape solves any stated problem or is for any particular purposes and it appears the gaming machine's sound features & general sound wave propagation would perform equally well with side walls of a rectangular or square shape. Therefore, it would have been prima facie obvious to modify the combination of Rasmussen et al. & Koizumi to obtain the inventions as specified in at least claims 1, 5, 6, 10, 11, 13, 14, 17, & 19.

**Claim 2:** In the implementation of the combination of Rasmussen et al. & Koizumi, it could be seen obvious that the sound transmitting holes on the front of the cabinet door are to be

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reformed to be the shape of the sound transmitting passage of Koizumi, which is seen to be vertically elongated (see figure 1 of Koizumi). The combination also provides for having sound transmitting sections on either side of the opening on the front face of the cabinet.

**Claims 21-23:** The combination of Rasmussen et al. & Koizumi as discussed above discloses the invention substantially as claimed except for explicitly disclosing that the sound transmitting passages (including the left and right sidewalls) are substantially parallel to each other throughout entireties thereof from the respective sound generating devices to the respective sound generating holes. However, regardless of this deficiency it would have been obvious matter of design choice to one of ordinary skill in the art. The combination of Rasmussen et al. & Koizumi teaches sound transmitting passages, where Koizumi discloses that the sound transmitting passages are non-parallel, however, the Applicant has not stated that having parallel sound transmitting passages solves any stated problem or is for any particular purpose, and it appears the gaming machine's general sound wave propagation would perform equally well with sound transmitting passages or sidewalls that were parallel throughout the entireties of their respective passages. It appears that in either scenario of non-parallel or parallel sound transmitting passages, the same result of directed sound to the front face of the gaming machine would be produced. Therefore, it would have been prima facie obvious to modify the combination of Rasmussen et al. & Koizumi to obtain the inventions as specified in at least claims 21-23.

#### *Response to Arguments*

Applicant's arguments filed April 17, 2007 have been fully considered but they are not persuasive.

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The Applicant's arguments appear to simply to the position that the Examiner did not present a proper *prima facie* case of obviousness in the rationale that the shape of the sound transmitting passages is a mere design consideration. To support the assertion, the Applicant submits numerous course decisions by the Board of Patent Appeals and Interferences, along with discussion of "the claimed increasing height or trapezoidal shape of the sound transmitting passages provides numerous advantages over the prior art". The Examiner respectfully disagrees with each of the Applicant's arguments.

First, the Examiner submits that the submission of the several decisions by the Board of Appeals & Interferences is a spurious argument, where the Applicant fails to explain why these documents would make the claimed invention allowable. Also, it is understood a patent examiner does not "interpret" case law, but rather examines an application as bounded by the manual of patent examination and prosecution (i.e. the MPEP), which itself is bounded by case law. Therefore, the Examiner has not fully considered the several decisions submitted by the Applicant.

The Examiner agrees with Applicant's assertion that The Examiner submits that a proper *prima facie* case of obvious was presented and that a "design choice" rejection was not added on merely to free the Examiner from any burden of providing a rejection for the claimed limitation. The Examiner, when making an obvious design choice rejection, according to examination procedures (i.e. the MPEP), must review the specification and ascertain if the limitation in question is disclosed as serving any advantage or particular purpose, or whether it solves a stated problem. Additionally, the Examiner must explain the reasoning used to determine that the prior art would have performed equally as well as the claimed invention. *Ex parte Clapp* 227 USPQ 972, 973 (Board of Patent Appeals & Interferences, 1985). The Examiner respectfully submits that such an analysis was provided in the previous action, and thus the Examiner maintains a proper *prima facie* case of



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obviousness has been presented. Additionally, the Examiner has consulted a supervisory examiner, per Applicant's request, and the above was based on that discussion.

Secondly, the Applicant submits discussion on number advantages that such a shape of a sound transmitting passage would have, however, each of the discussed advantages appear to be inherent to the prior art, and thus, do not sufficiently overcome the fact that the mere design of the sound transmitting passage being a trapezoidal shape would produce in any unexpected results or be beneficial for any particular reason. The Applicant submits the following: (1) the shape helps in making a gaming machine more difficult to tamper, (2) the shape helps in channeling emitting sound towards the front face of the gaming machine cabinet with low or insignificant amplitude attenuation, and (3) the shape provides additional interior space in crowded gaming machines. The Examiner respectfully disagrees in these particular points being an advantage of a trapezoidal shape, and that the prior art of Koizumi would inherently have these advantages. Clearly a person of ordinary skill in the art implementing a similar waveguide or sound transmitting passage of Koizumi in Rasmussen would produce a gaming machine in which each of (1) the waveguide would prevent tampering with gaming device through the transmitting holes, as game device components would not be in the waveguide (i.e. empty space), (2) the waveguide would channel sound to the front face of the gaming machine using little or no amplitude attenuation due to the sound be directed to the front of the gaming machine through an enclosed waveguide channel, and (3) the waveguide, as shown in various embodiments folding around components, would thereby provide additional space in a crowded interior of a gaming machine. Therefore, the Examiner is not persuaded that such a specific trapezoidal shape has any added benefits over a waveguide having any other shape and maintains that the Applicant has failed to show any beneficial distinction.

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See also *In re Dailey*, 35 F.2d 669, 149 USPQ 47 (CCPA 1966), where the court held that the configuration of a claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant. Thus, a change in shape, is considered (based on the MPEP) as a mere design consideration by one of ordinary skill in the art.

Therefore, for at least the reasons given, the Examiner maintains the rejections by incorporating the rejections of claims 3, 12, & 18 into the rejections of their respective base claims, in response to the Applicant canceling claims 3, 12, & 18 and added their subject matters to their respective base claims.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents show, what is well known in the sound propagation art, as waveguides or folded horns (i.e. enclosures helping the directed propagation of sound from a sound emitting device). Each of the patents appear to disclose or show a sound transmitting passage having a trapezoidal shape. See U.S. Patent Numbers 2,599,895, 5,140,641, 6,009,182, & 6,837,334.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Milap Shah whose telephone number is (571) 272-1723. The examiner can normally be reached on M-F: 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.B.S.



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SUPERVISORY PRIMARY EXAMINER